

REMARKS

Claims 1-41 are active in this application.

At the outset, Applicants wish to thank Examiner Kim for the helpful and courteous discussion with their undersigned Representative on October 21, 2003. During this discussion, various amendments and arguments were discussed to address the rejection under 35 U.S.C. §103(a). The content of this discussion is believed to be reflected in the amendments and remarks set forth in this response.

The rejection of Claims 1-4 under 35 U.S.C. §103(a) over Hofrichter et al is traversed.

Hofrichter et al disclose an antiperspirant gel stick containing a gelling agent selected from 12-hydroxystearic acid, esters of 12-hydroxystearic acid, amides of 12-hydroxystearic acid, and mixtures thereof as a primary gelling agent and a n-acyl amino acid amide derivative as a secondary gellant (see Abstract).

The Examiner points to the very broad disclosure of n-acyl amino acid amide derivative provided in column 4, lines 35-43. The Examiner then asserts that all of the claimed compounds are encompassed by the generic formula taught in Hofrichter et al. Applicants note that although Hofrichter et al may provide for the possibility of a compound within the scope of the claimed invention, Hofrichter et al fail to provide adequate motivation to select such a compound from the very broad genus disclosed therein, much less provide a reasonable expectation of the advantageous properties flowing therefrom. In fact, the Examiner has acknowledged the absence of a specific disclosure in Hofrichter et al of the claimed invention noting: "applicant's claims require narrower scope than what US '424 suggests in his generic

formula (column 4, lines 35-43) and US '424 fails to specifically mention the same species required by instant claims 3-4."

Applicants agree that Hofrichter et al fail to explicitly name, suggest, or exemplify any species that falls within the scope of the present claims. In fact, Applicants note that the preferred species listed by Hofrichter et al at column 4, line 52 to column 5, line 2 would actually lead the artisan away from the range of R^3 in the present claims. For example in the claimed invention, R^3 represents a hydrocarbon group having 7 to 10 carbon atoms (see Claim 1): In contrast, in the preferred species of Hofrichter et al at column 4, line 52 to column 5, line 2 and the Examples, the position corresponding to R^3 contains 11 carbon atoms or more. Therefore, Applicants note that the skilled artisan would not be motivated to obtain the claimed compounds. Moreover, based on the disclosure of Hofrichter et al the skilled artisan would have no means of envisioning the advantages flowing from the claimed invention.

The presently claimed compounds have a high gelling ability in various types of oils. In particular, the presently claimed compounds can result in high values far exceeding 100 as shown in Table 1 for IPM (isopropyl myristate), TOG (triocanoic acid glyceride), and liquid paraffin. In this connection, a higher gelling value corresponds to a higher gelling ability to obtain a hard gel. Accordingly, a gelling ability lower than 100 is insufficient for preparation of a hard gel, such as is necessary for preparation of a lipstick. Therefore, the advantageous effect of the present invention can be understood in that the compounds have a high gelling ability for various kinds of oils and, as a result, can give hard gels suitable for preparation of lipsticks having a resistance to breakage.

The advantages provided by the presently claimed invention can be seen by a direct comparison between a preferred compound from Hofrichter et al (N-lauroylglutamic acid

dibutylamide; Comparative Example 3) and the closest compound within the scope of the present invention (N-decanoylglutamic acid dibutylamide; Example 6). In this comparison 0.1g of each N-acyl glutamic acid dibutylamide was added to 20g of each oil. The N-acyl glutamic acid dibutylamide was then dissolved by heating on an oil bath at 150°C. The resulting solution was cooled for 15 hours at 23°C to obtain a gel composition. Subsequently, gel strength of each of the resulting gel compositions was measured by using a rheometer (page 13, lines 6-16).

The gelling ability of each of these compounds was determined for IPM (isopropyl myristate), TOG (trioleic acid glyceride), and liquid paraffin as described above and the results are reported in Table 1, which is reproduced in relevant part below:

Gel composition	Acyl group	IPM	TOG	Liquid paraffin
Example 6 (present invention)	Decanoyl	120	183	154
Comparative Example 3 (<u>Hofrichter et al</u>)	Dodecanoyl (lauroyl)	95	116	92

What is clear from the above is that, for each of the oils tested, the claimed N-acylglutamic acid dibutylamides provide superior gelling activity irrespective of the oil selected. Such a result certainly is not apparent from the disclosure of Hofrichter et al.

Further, the N-lauroylglutamic acid dibutylamide, which is a typical example from Hofrichter et al and has a long-chain acyl group (compound A), was tested in Comparative Example 9 in the present specification. The exemplary Hofrichter et al compound was

compared to a compound within the scope of the presently claimed invention: an N-2-ethylhexanoylglutamic acid dibutylamide (Example 12), i.e., a compound having a short acyl group. In this comparison, each gelling agent was dissolved in an oil by heating, then aluminum zirconium trichlorohydrate glycine was added to the resulting solution, and the solution was cooled with stirring to obtain an antiperspirant gel stick. Gel strength of each of the resulting antiperspirant gel sticks was measured by using a rheometer (page 16, lines 1-10). The results appear in Table 3, which is reproduced in its entirety below. Also appearing in Table 3 are the additional additives that were present in the antiperspirant gel sticks, which were maintained at a constant value to ensure that the only variable for comparison is the amount of the gelling agent.

	Comparative Example 9	Example 11	Example 12
N-lauroylglutamic acid dibutylamide	2	1	-
N-2-ethylhexanoylglutamic acid dibutylamide	-	1	2
12-Hydroxystearic acid	7	7	7
Octyldodecanol	14	14	14
Cyclometicon D-5	48	48	48
Aluminum zirconium trichlorohydrate glycine	26	26	26
Gel strength (g/cm ²)	1847	2250	2650

In Table 3, the compound within the scope of the presently claimed invention (Example 12), having a shorter and branched acyl group, provided a significantly improved gel strength

(g/cm²) compared to the preferred compound of Hofrichter et al, which has a long-chain acyl group. From Table 3, it can be readily understood that the compound of the present invention with a shorter acyl group has improved gelling properties than that of the prior know compounds having a long-chain acyl group.

Moreover, with regard to the advantageous effect of the present invention, Applicants note that the combination of the presently claimed compound (exemplified by N-2-ethylhexanoylglutamic acid dibutylamide having a short acyl group) with N-lauroylglutamic acid dibutylamide can produce even greater gelling ability (preferably when used in a 1:1 ratio) as compared to just N-lauroylglutamic acid dibutylamide alone. In particular the 1:1 ratio is superior for providing a translucent gel.

In view of the foregoing, Applicants submit that the present invention is not obvious in view of Hofrichter et al. Accordingly, Applicants request acknowledgement that this ground of rejection has been withdrawn.

With respect to the non-elected claims, Applicants note that these claims depend directly from the elected compound claims. As such, the compounds are required elements in the non-elected claims. Therefore, if the compound claims are found allowable, these compounds would necessarily impart novelty upon the non-elected claims and they too should be found allowable. To this end, Applicants have amended the non-elected claims to remove improper multiple dependencies to ensure no delays in examination.

Applicants submit that the present application is now in condition for allowance. Early notification of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Stephen G. Baxter
Attorney of Record
Registration No. 32,884

Vincent K. Shier, Ph.D.
Registration No. 50,552

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413-2220
(OSMMN 08/03)
NFO:VKS